

# Installation, Operating and Service Instructions

for use by heating contractor

**VIESSMANN**<sup>®</sup>

## Vitocell 300-W, EVIA

Single coil, indirect-fired domestic hot water storage tank  
42 USG (160 L) capacity

## Vitocell 300-V, EVIA

Single coil, indirect-fired domestic hot water storage tank  
53 USG (200 L) capacity

## Vitocell 300-V, EVIA

Single coil, indirect-fired domestic hot water storage tank  
79 USG (300 L) capacity

## Vitocell 300-V, EVIB

Single coil, indirect-fired domestic hot water storage tank  
119 USG (450 L) capacity



## VITOCCELL<sup>®</sup> 300-W, 300-V



*Product may not be exactly as shown*

**IMPORTANT**

**Read and save these instructions for future reference.**

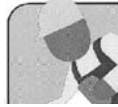
# Safety, Installation and Warranty Requirements

Please ensure that these instructions are read and understood before commencing installation. Failure to comply with the instructions listed below and details printed in this manual can cause product/property damage, severe personal injury, and/or loss of life. Ensure all requirements below are understood and fulfilled (including detailed information found in manual subsections).

■ **Licensed professional heating contractor**

The installation, adjustment, service and maintenance of this equipment must be performed by a licensed professional heating contractor.

► *Please see section entitled "Important Regulatory and Installation Requirements".*



■ **Advice to owner**

Once the installation work is complete, the heating contractor must familiarize the system operator/ultimate owner with all equipment, as well as safety precautions/requirements, shutdown procedure, and the need for professional service annually before the heating season begins.

■ **Product documentation**

Read all applicable documentation before commencing installation. Store documentation near product in a readily accessible location for reference in the future by service personnel.

► *For a listing of applicable literature, please see section entitled "Important Regulatory and Installation Requirements".*



■ **Warranty**

Information contained in this and related product documentation must be read and followed. Failure to do so renders the warranty null and void.



In solar applications

 **CAUTION**

The heat transfer medium must be either potable water or contain only substances which are recognized as safe by the U.S. Food and Drug Administration.

The Pressure of the heat transfer medium must be maintained less than the normal minimum operating pressure of the potable water system

Heat transfer medium

 **CAUTION**

The heat transfer medium must be water or other non-toxic fluid having a toxicity rating or class of 1, as listed in clinical toxicology of commercial products, 5th edition.

This tank version is not suitable for steam heating applications.

The pressure of the heat transfer medium must be limited to a max. of 30 psig by an approved safety or relief valve.

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## Important Regulatory Requirements

### Codes

The installation of indirect-fired hot water storage tanks in boilers and solar system application might be governed by individual local rules and regulations for this type of product, which must be observed. Always use latest editions of codes.

**THIS TANK MEETS NSF/ANSI 372 FOR LOW LEAD CONTENT.**

In the Commonwealth of Massachusetts, all plumbing work must be done by a licensed plumber or gas-fitter and for gas installations, all gas piping must be done by a licensed gas-fitter.

### Mechanical room

Ensure the mechanical room complies with the requirements of the system design guideline and/or Technical Data Manual (available from your Viessmann sales representative).

The tank must be installed in a mechanical room which is never subject to freezing temperatures.

Ensure water in tank is drained if not in use and danger of freezing exists in the mechanical room.

### WARNING

If the heating system itself is to be filled with Glycol or any other antifreeze, the system fill must be of non-toxic or food grade antifreeze. In any circumstance, a non-toxic fluid must be used. Ensure a copy of the Safety Data Sheet (SDS) is supplied to the operator/ultimate owner of the system. The use of Viessmann supplied "Tyfocor-HTL" solar fill is recommended for the solar heating circuit.

### Working on the equipment

The installation, adjustment, service, and maintenance of this equipment must be done by a licensed professional heating contractor who is qualified and experienced in the installation, service, and maintenance of hot water heating systems. There are no user serviceable parts on this equipment.

Ensure main power supply to equipment, the heating system, and all external controls has been deactivated. Close main oil or gas supply valve. Take precautions to avoid accidental activation of power during service work.

### CAUTION

The heating coil which is assembled with a rubber seal and glue in the tank is sensible to high temperatures. Exercise caution when welding and brazing: be sure not to exceed a temperature of 302°F (150°C) in the NPT fittings area.

► Please carefully read this manual prior to attempting installation. Any warranty is null and void if these instructions are not followed.

This product must be installed observing not only the information and instruction provided in the pertinent product literature (see list on the following page), but also all local, provincial/state plumbing and building codes, as they apply to this product and all periphery equipment.

For information regarding other Viessmann System Technology componentry, please reference documentation of the respective product (available from your Viessmann sales representative).

We offer frequent installation and service seminars to familiarize our partners with our products. Please inquire.

► The completeness and functionality of field supplied electrical controls and components must be verified by the heating contractor. These include low-water cut-offs, flow switches (if used), staging controls, pumps, motorized valves, air vents, thermostats, temperature controls, etc.

## Important Regulatory Requirements *(continued)*

### Instructing the system user

The installer of the system is responsible to ensure the system operator/ultimate owner is made familiar with the system functioning, its activation, and its shut-down. The operator/ultimate owner should also be instructed to complete and mail the warranty registration form in order to be eligible for limited warranty.

### Initial startup

Initial start-up must be performed by a qualified heating contractor. Completion of the Maintenance Record by the heating contractor is also required.

### Operation

Please carefully read the operation and service sections of this manual prior to operation.

The installer of the system is responsible to ensure the system operator/ultimate owner is made familiar with the system functioning, its activation, and its shut-down. The operator/ultimate owner should also complete and mail the warranty registration form in order to be eligible for limited warranty.

### Technical literature

Literature applicable to all aspects of the Vitocell:

- Technical Data Manual
- Installation, Operating and Service Instructions

- ▶ The following topics must be covered:

Proper system operation sequence.

Explain the equipment as well as the need for combustion air. Demonstrate an emergency shut-down, what to do and what not.


Explain that there is no substitute for proper maintenance to help ensure safe operation.


- ▶ The Maintenance Record is located on page 31 of this manual.

- ▶ Failure to abide by all the requirements set out in the technical literature renders warranty null and void.

- ▶ Leave all literature at the installation site and advise the system operator/ultimate owner where the literature can be found. Contact Viessmann for additional copies.


## About These Instructions

 Take note of all symbols and notations intended to draw attention to potential hazards or important product information. These include “WARNING”, “CAUTION”, and “IMPORTANT”. See below.

 **WARNING**

Indicates an imminently hazardous situation which, if not avoided, could result in substantial product/property damage, serious injury or loss of life.

► Warnings draw your attention to the presence of potential hazards or important product information.

 **CAUTION**

Indicates an imminently hazardous situation which, if not avoided, may result in minor injury or product/property damage.

► Cautions draw your attention to the presence of potential hazards or important product information.

**IMPORTANT**

► Helpful hints for installation, operation or maintenance which pertain to the product.



► This symbol indicates that additional, pertinent information is to be found.



► This symbol indicates that other instructions must be referenced.

## Product Information

**Vitocell 300-W, EVIA 42 USG (160 L) capacity**

**Vitocell 300-V, EVIA 53 USG (200 L) capacity**


**Vitocell 300-V, EVIA 79 USG (300 L) capacity**

**Vitocell 300-V, EVIB 119 USG (450 L) capacity**

Indirect-fired domestic hot water storage tank with one heat exchanger coil for use with hot water heating boilers, residential/commercial heating plants, and low-temperature heating systems.

This tank version is not suitable for steam heating applications.

## Tank Setup

 **CAUTION**

Install the DHW tank in a frost-protected and draft-free room. Otherwise it must be drained when not in use, in order to reduce the risk of damages caused by freezing.

- Position tank carefully and remove packaging.
- Leave adequate clearance to the wall or other objects enabling easy access to the pressure relief valve.
- Install tank(s) on flooring or foundation capable of supporting the weight of the tank(s) filled with water.

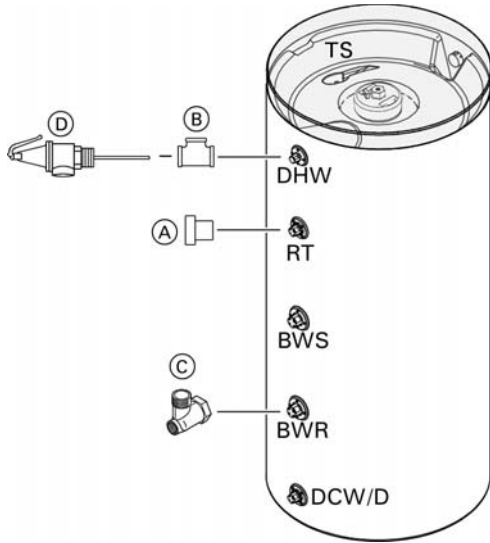
### Recommended service clearances

Rear		in. (mm)	18 (460)
Sides	May be reduced if rear pipe connections can be reached with less clearance	in. (mm)	12 (300)
Top		in. (mm)	12 (300)
Front		in. (mm)	29 (730)

### Minimum clearances to combustibles

All sides	in. (mm)	0 (0)
Floor		combustible

## 42 and 53 USG (160 and 200 L) Tank Connections



Supplied component sizes		Quantity
Part	Size	
(A) Cap	3/4 in. NPT	1
(B) Tee	3/4 in. NPT	1
(C) Solar elbow*	1 in. NPT	1
(D) Temperature and pressure relief valve	3/4 in. NPT	1

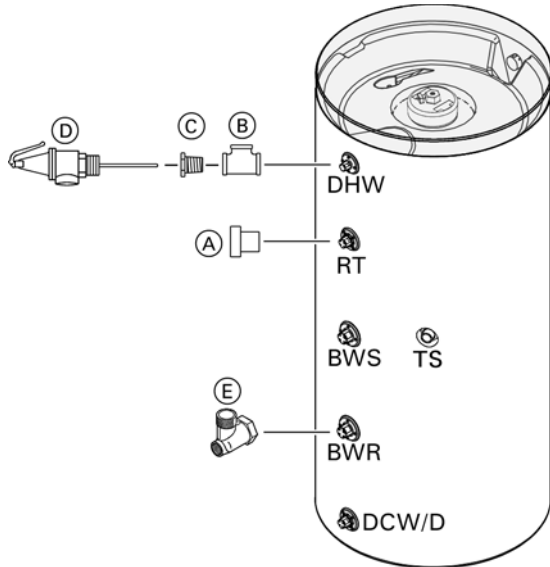
\* Optional for Solar applications only.

Connections	Size	Quantity
BWS, BWR	in. (male NPT)	1
DHW, DCW/D, RT	in. (male NPT)	3/4

### Legend

- DHW Domestic Hot Water supply
- RT Recirculation tapping (DHW)
- TS DHW temperature sensor for boiler control
- BWS Boiler Water Supply
- BWR Boiler Water Return
- DCW/D Domestic Cold Water supply/Drain

## 79 USG (300 L) Tank Connections



Supplied component sizes		Quantity
Part	Size	
(A) Cap	1 in. NPT	1
(B) Tee	1 in. NPT	1
(C) Reducer bushing	1 to 3/4 in. NPT	1
(D) Temperature and pressure relief valve	3/4 in. NPT	1
(E) Solar elbow*	1 in. NPT	1

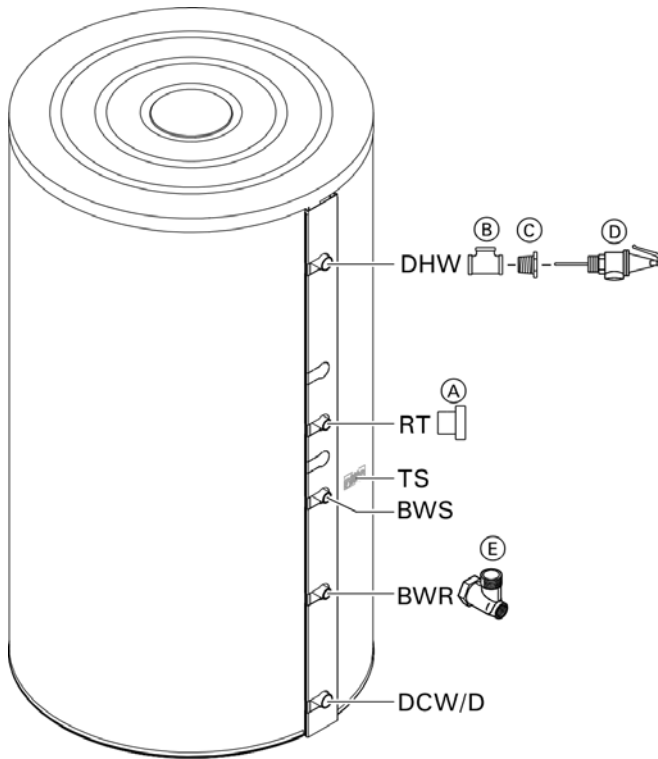
\* Optional for Solar applications only.

Connections	Size	Quantity
BWS, BWR	in. (male NPT)	1
DHW, DCW/D, RT	in. (male NPT)	1

### Legend

- DHW Domestic Hot Water supply
- RT Recirculation tapping (DHW)
- TS DHW temperature sensor for boiler control
- BWS Boiler Water Supply
- BWR Boiler Water Return
- DCW/D Domestic Cold Water supply/Drain

## 119 USG (450 L) Tank Connections



Supplied component sizes		Quantity
Component	Size	
Ⓐ Cap	1 in. NPT	1
Ⓑ Tee	1 ¼ in. NPT	1
Ⓒ Reducer bushing	1 ¼ to ¾ in. NPT	1
Ⓓ Temperature and pressure relief valve	¾ in. NPT	1
Ⓔ Solar elbow*	1 in. NPT	Optional

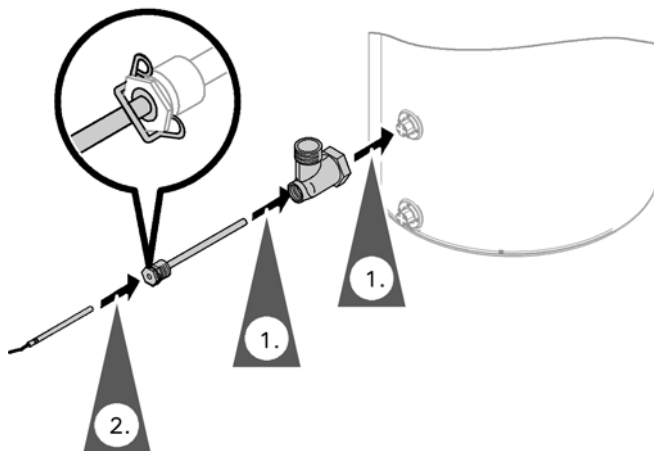
\* Optional for Solar applications only.

Connections		Size
BWS, BWR, RT	in. (male NPT)	1
DHW, DCW/D	in. (male NPT)	1 ¼

### Legend

- DHW Domestic Hot Water supply
- RT Recirculation Tapping (DHW)
- TS Clamp (behind the thermal insulation) for tank Temperature Sensor or temperature controller
- BWS Boiler Water Supply
- BWR Boiler Water Return
- DCW/D Domestic Cold Water supply/Drain

## 42 and 79 USG (160 and 300 L) Tank Installation



### Temperature sensor installation for solar operation

The temperature sensor for solar operation is included in the solar control unit package. The brass elbow with sensor well is available as an option and must be used when solar connection is required.

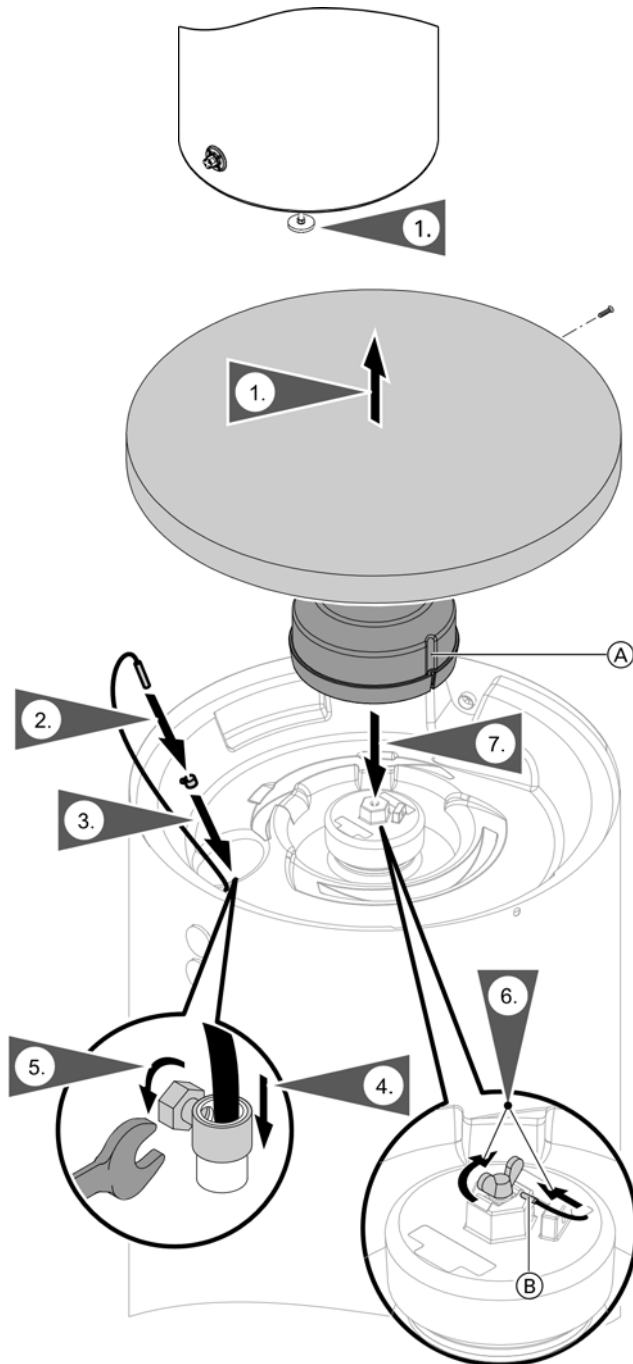
1. For solar operation, install the sensor well into the brass elbow and connect the assembly to the solar return line.
2. Insert the temperature sensor until it bottoms out inside the sensor well.

### IMPORTANT

Never wrap insulating tape around the sensor. Do not install solar tank sensor anywhere other than the brass elbow with sensor well.



## 42 and 53 USG (160 and 200 L) Tank Installation



### Tank levelling

1. Level the DHW tank with its leveling bolts.

### IMPORTANT

Do not extend the leveling bolts beyond an overall length of 1½ in. (35 mm).

### Temperature sensor installation (when using Viessmann controls).

1. Remove cover screw and remove top cover.
2. Route the sensor cable through the strain relief to the sensor well.
3. Attach the strain relief to the sensor well.
4. Push the DHW #5 or temperature controller sensor to the bottom of the well.
5. Snug the strain relief screw. Do not overtighten to damage the cable.
6. Insert the thermometer sensor (B) into tank cap hole and secure with the wing nut.

### IMPORTANT

Due to the length of the stainless steel well 17½ in. (449 mm), care must be taken to ensure that the sensing bulb of the sensor is inserted and pushed to the end of the stainless steel well.

7. Reinstall top cover and secure with top cover screw.

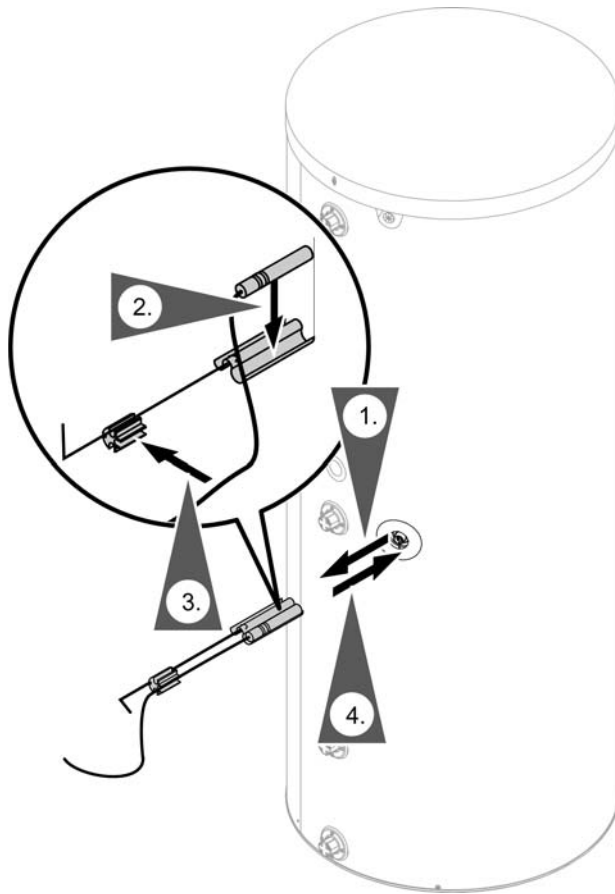
### IMPORTANT

Never wrap insulating tape around the sensor.

**Note:** The tank comes with insulation jacket installed. The temperature sensor well is installed and will accept a supplied Viessmann 10K NTC sensor with a Viessmann boiler or Viessmann control.

**Note:** For control by others the sensor bulb should be ¼ in. (6 mm) in diameter or cut out opening (A) on the flange insulation and push the high limit safety cut-out sensor (B) into the clamping bracket and secure with supplied wing nut.

## 79 USG (300 L) Tank Installation

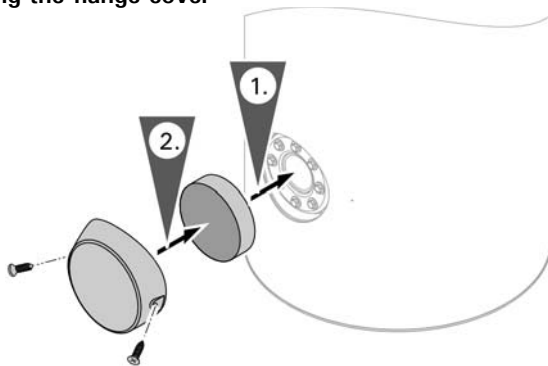


### Installing the sensor well and the cylinder temperature sensor

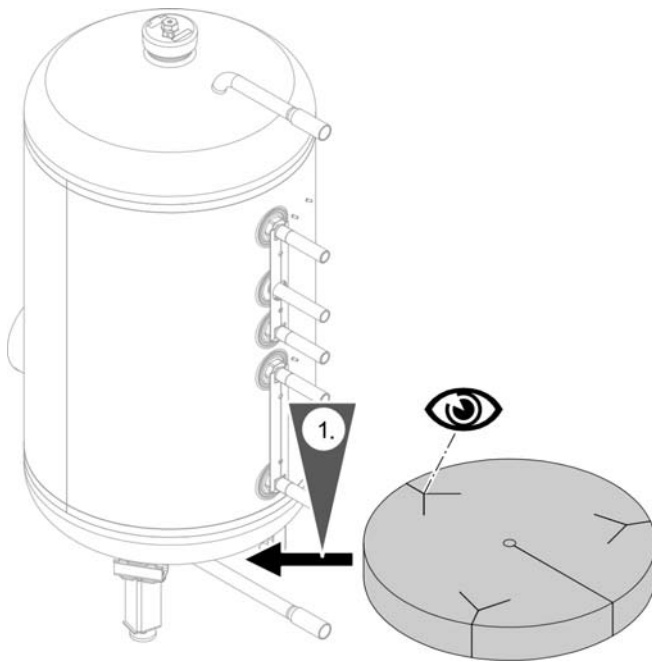
**Note:** The sensor retainer is in the sensor well.

1. Remove the sensor retainer.
2. Fit the sensor to the outside of the sensor retainer contact spring (not in the groove).  
**Note:** The sensor must sit flush with the front of the spring.
3. Insert the sensor retainer with sensor into the sensor well as far as it will go.

### Fitting the flange cover



## 119 USG (450 L) Tank Installation



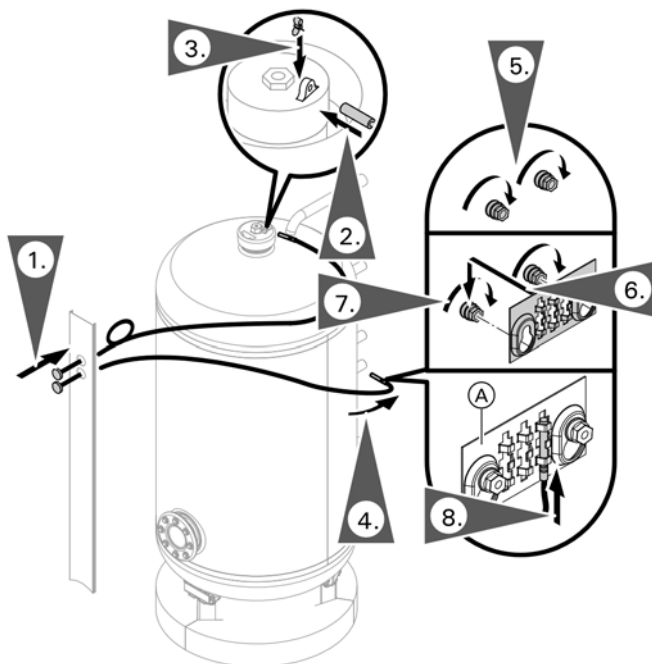
### Setting the DHW tank and fitting the thermal insulation mat at the bottom

All necessary parts for enclosure assembly are packaged in a separate carton.

#### **CAUTION**

The thermal insulation must not come in contact with open flames. Exercise extreme caution when welding and soldering.

1. Fit the thermal insulation blanket below the tank prior to the installation of the tank itself.

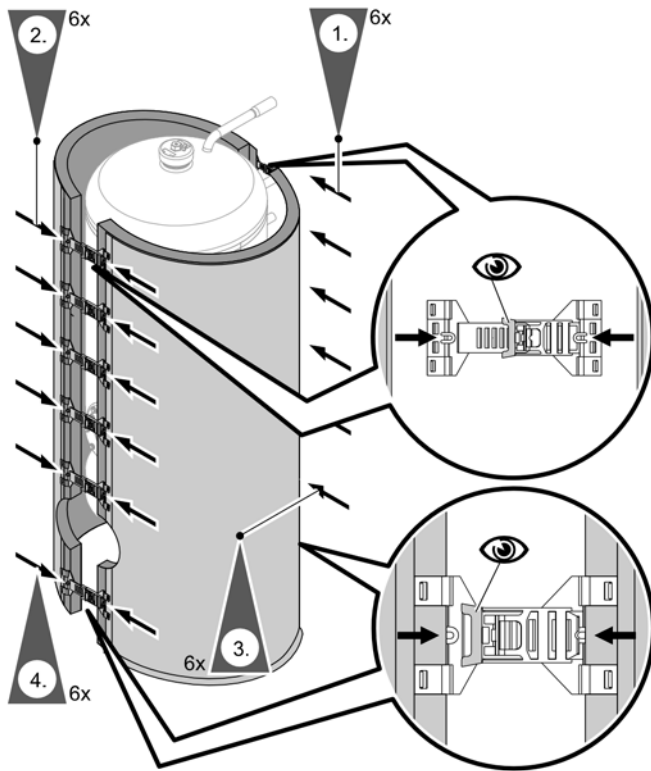


### Fitting the thermometer sensor and tank temperature sensor

1. Guide the thermometer sensor through the cover strip and insert the thermometer.  
**Note:** The cover strip is held in its vertical position by the straight capillaries. This is necessary for the rest of the installation.
2. Insert the upper thermometer sensor as far as it will go into the hole in the tank cap.
3. Use clips to secure the thermometer sensor against being pulled out.
4. Route the bottom thermometer sensor capillaries to the back of the tank body.
5. Screw the nuts onto the threaded studs. Do not tighten.
6. Push the clamps onto the threaded studs and align.
7. Tighten the nuts.
8. Depending on where the sensor is being fitted: Insert the thermometer sensors and tank temperature sensors into clamp (A) as far as they will go.

- Note:**
- Never wrap insulating tape around the sensors.
  - When the thermal insulation is being fitted, the tank temperature sensor leads are routed outwards through the apertures (slots) in the rear cover strip.
  - The tank includes one (1) thermometer.

**119 USG (450 L) Tank Installation** *(continued)*



**Fitting the thermal insulation jacket**

**Note:**

- Ensure that no fleece remnants enter the DHW tank through the tank connections.
- 2 people are required for the following work.

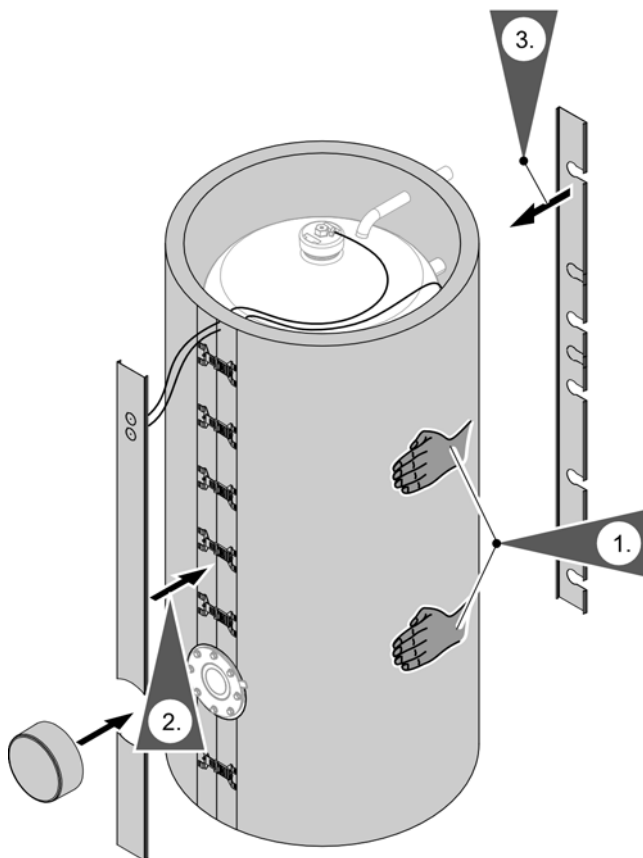
1. At the back of the tank: Attach 6 clip fastenings to the edges of the right and left sections of the insulation jacket and lay the thermal insulation jacket around the tank body.

**Note:** Leave the clip fasteners in the first notch.

2. At the front of the tank: Attach 6 clip fasteners to the edges of the right and left sections of the thermal insulation jacket.

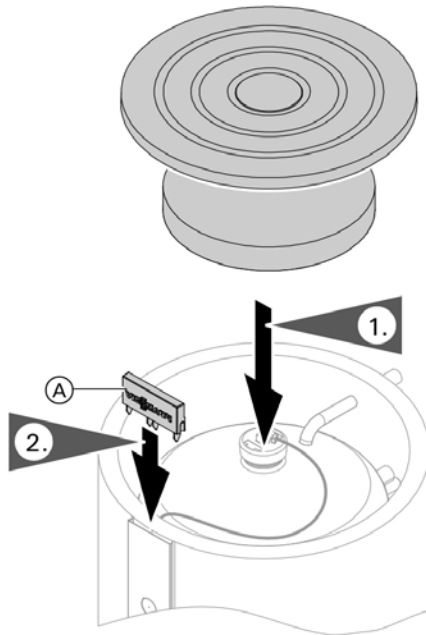
3. Push the clip fasteners at the back of the tank as close together as possible.

4. Push the clip fasteners at the front of the tank as close together as possible.



**Fitting the cover strips**

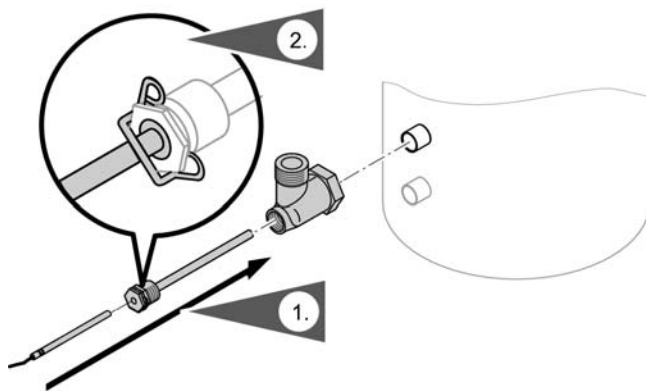
1. Fit the thermal insulation jacket evenly around the tank body by patting it.
2. Mount the front cover strip and flange cover.
3. Fit the rear cover strip.

**119 USG (450 L) Tank Installation** *(continued)***Fitting the cover**

**Note:** The soft side of the thermal insulation must rest against the tank body.

**Legend**

Ⓐ Cap with Viessmann logo

**Fitting the tank temperature sensor elbow for solar operation (optional)**

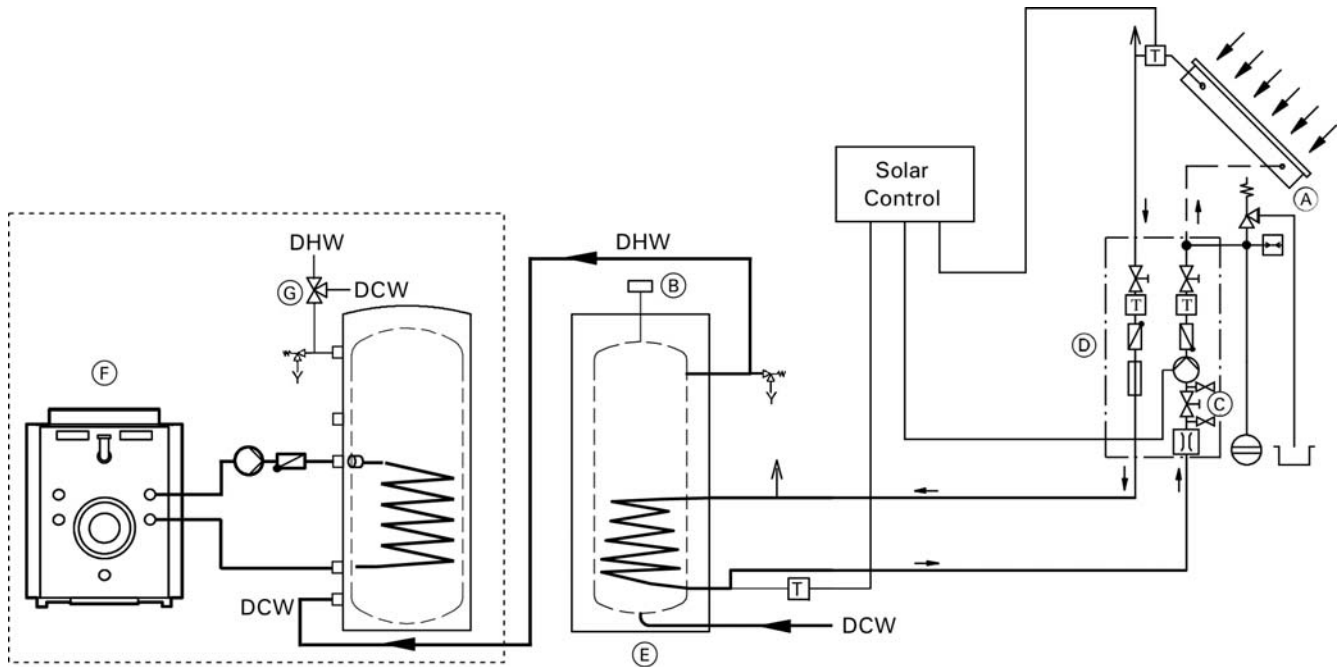
1. Seal threaded elbow and sensor well (accessories) into the heating water return connection (solar return).
2. Insert the tank temperature sensor (part of solar control unit standard delivery) into the sensor well as far as it will go and secure it against slipping out.

**IMPORTANT**

**Never wrap insulating tape around the sensor. Do not install solar tank sensor anywhere other than the brass elbow with sensor well.**

**Boiler Water Connections** (heat exchanger connection)

Recommended piping for solar application with an additional tank



**Legend**

- (A) Solar collector
- (B) High limit safety cut-out
- (C) Filling valve
- (D) Solar-Divicon
- (E) Vitocell 300-W, 300-V
- (F) Individual DHW tank heating system
- (G) Anti-scald tempering valve

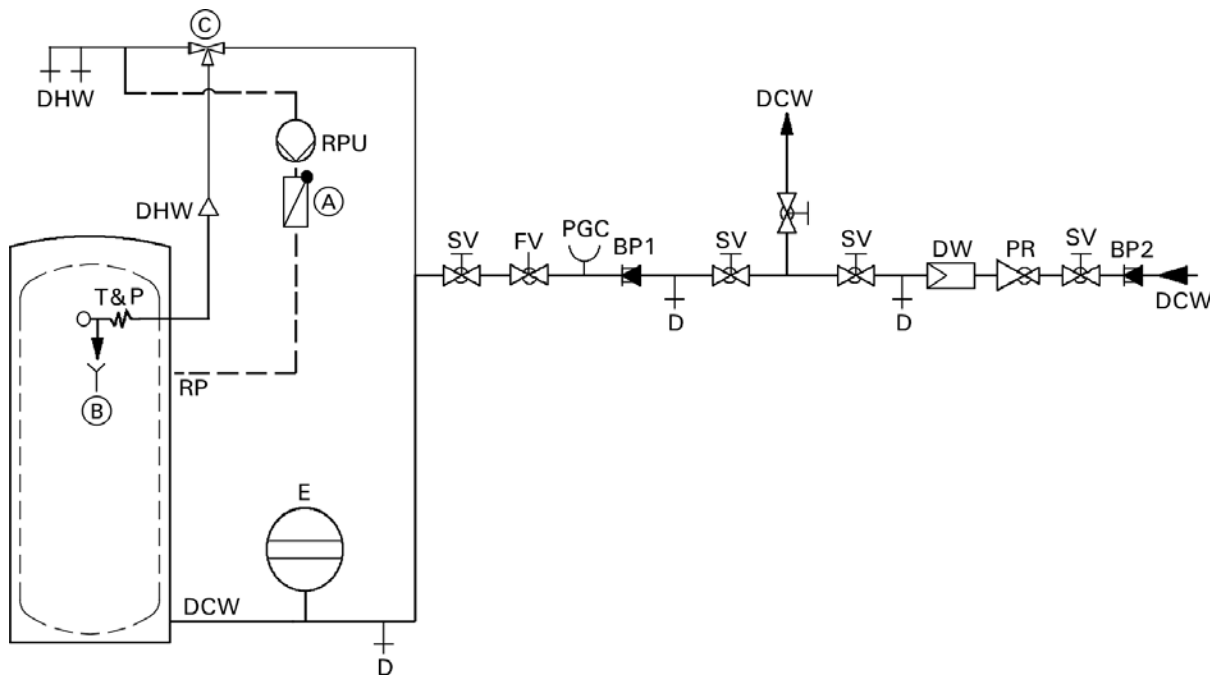
1. For boiler water supply temperatures over 203°F (95°C):  
Remove plastic supply and return grommets (grommets are left-threaded).
2. Pipe supply line with an incline and install an air vent valve at the highest point.
3. For boiler water supply temperatures over 230°F (110°C):  
Install a type-tested high limit safety cut-out, if no other has previously been installed in this system. For this purpose, install a dual thermostat (high limit thermostat and high limit safety cut-out).
4. Close off test nipples which are not used for the installation of a probe or sensor.

**! WARNING**

Due to the potentially high DHW temperatures generated by the solar heating system, the domestic hot water temperature must be limited to a maximum of 140°F (60°C) by installing a anti-scald tempering valve. The tempering valve does not completely eliminate the risk of scalding at the tap. The installation of a mixing tap is recommended.

**Note:** Tee with sensor well for solar return must be ordered separately.

## Domestic Water Connections



**Note:** - Connect all pipe work with detachable fittings.

- Seal connections that are not required with brass caps.
- Equip the DHW circulation pipe with circulation pump, check valve and time switch. Gravity operation is only feasible to a limited degree.
- Always install DHW group of tanks with connected DHW circulation.

1. Pipe together boiler and tank as illustrated. Connections must be accessible for service (use factory supplied adaptors).
2. Insulate domestic hot water supply piping.

### IMPORTANT

This is a simplified conceptual drawing only! Piping and necessary componentry must be field verified. Proper installation and functionality in the field are the responsibility of the heating contractor.

#### Legend

(A)	Spring-loaded flow check valve
(B)	Discharge pipe
(C)	Anti-scald tempering valve (field supplied)
SV	Shut-off valve
FV	Flow check valve
PR	Pressure reducing valve
D	Drain
DCW	Cold water supply lines
PGC	Pressure gage connection
E	Precharged expansion tank (required where backflow preventer is installed; check local plumbing codes and requirements)
BP1	Backflow preventer
BP2	Backflow preventer
T&P	Temperature and pressure relief valve
DW	Water filter
DHW	Domestic hot water supply
RP	Recirculation pipe
RPU	Recirculation pump

**Domestic Water Connections** *(continued)*

Always ensure the use of type approved devices. Safety devices include the following components:

- Isolation valves
- Drain valve
- Pressure reducing valve where required by local jurisdiction
- Drinking water filter where required by local jurisdiction
- Backflow preventer  
Where backflow preventers are required, a domestic water expansion tank installation is required in the cold water inlet piping before the cold water enters the tank. The backflow device must be installed according to the manufacturer’s installation instructions. Observe local codes and regulations.
- Tempering valve  
A tempering valve must be field installed where storage tank (domestic hot water temperature) exceeds local restricted temperatures or 140°F (60°C). Check code requirements.

**IMPORTANT**

**In situations where a booster pump is used to maintain DHW pressure, Viessmann strongly recommends the installation of an oversized large expansion tank to ensure longer, less frequent pump cycles with less severe pressure gradients. If possible, use flexible piping before and after booster pump to isolate system piping from vibration and shocks.**

- Temperature and pressure relief valve  
A temperature and pressure relief valve (T&P valve) is supplied with the tank. The heating contractor must install the valve on each tank in a method meeting code requirements.  
If local codes require a different relief valve, consult Viessmann Manufacturing for a substitute valve. The tank is approved for 150 psig. Maximum operating pressure is 150 psig.  
The T&P valve supplied with the tank is tested under ANSI Z21.22 Code for Relief Valves and Automatic Gas Shut-off Devices for Hot Water Supply Systems.

<b>T&amp;P Valve set pressure</b>	<b>150 psig</b>
CSA discharge capacity	205 MBH*
Relief temperature	210°F (99°C)
Inlet thread	¾" male
Outlet thread	¾" female

\* 105 MBH for 42 USG (160 L)

Proper installation of the T&P valve shall include all of the following:

- The T&P valve shall be installed in the pipe connection point as shown in this manual.
- The discharge line from the T&P valve shall be Ø ¾ in. (19 mm) and run to a safe place of discharge approximately 1 ft. (305 mm) above the floor, close to a floor drain.
- The discharge line must be as short as possible and pitch downward from the T&P valve and terminate plain not threaded.

 **WARNING**

**The discharge line for the T&P valve must be oriented to prevent scalding of attendants.**

- Do not route discharge line directly to the outdoors.
- Do not install any type of valve or restriction of any kind between the tank and the T&P valve, or between the T&P valve and the discharge line outlet.

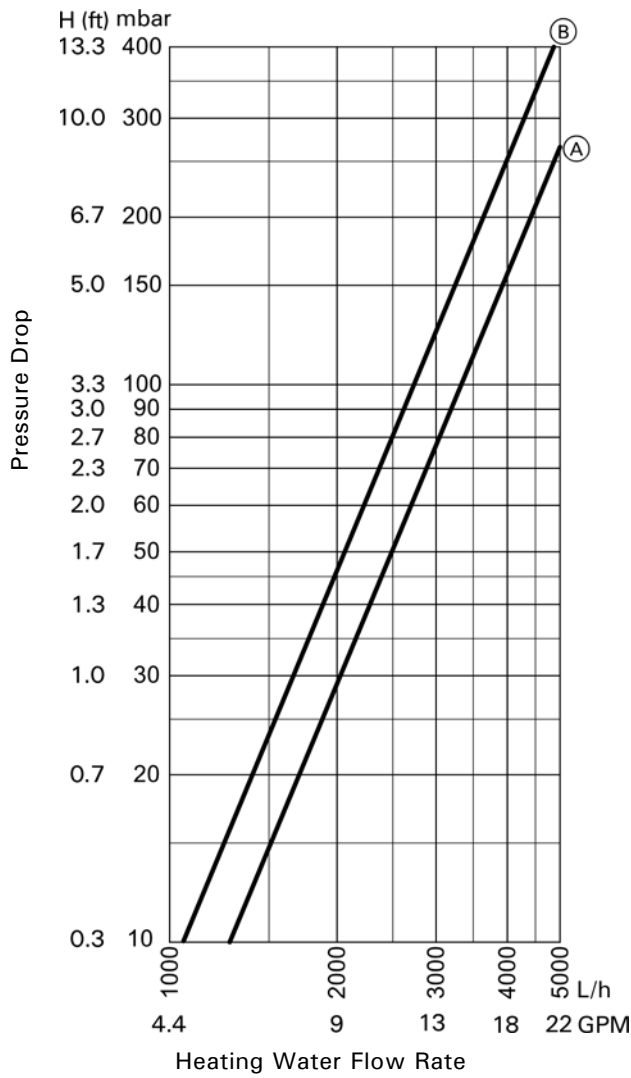
 **WARNING**

**The valve test lever must be operated at least once per year by the owner to ensure that waterways are clear. A licensed professional heating contractor shall reinspect the T&P valve at least once every three years. Failure to inspect can result in unsafe temperature or pressure build-up, which can result in death, serious injury or substantial product/property damage.**



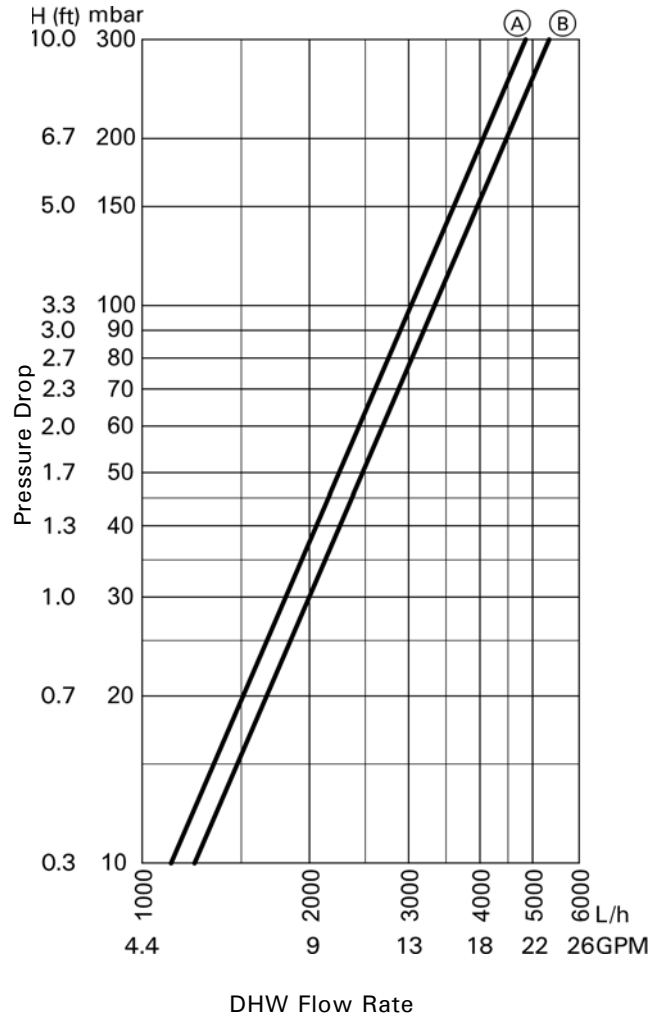
**42 to 79 USG (160 to 300 L) Pressure Drop Information**

Pressure drop on the heating water side



- Legend**
- (A) 42 and 53 USG (160 and 200 L) capacity
  - (B) 79 USG (300 L) capacity

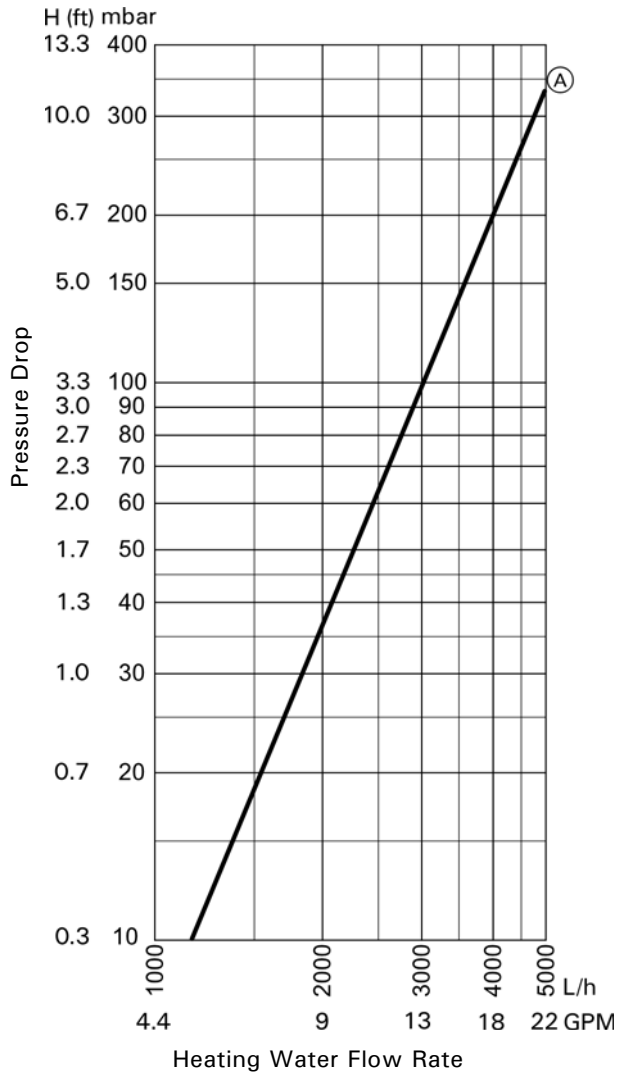
Pressure drop on the domestic hot water (DHW) side



- Legend**
- (A) 42 and 53 USG (160 and 200 L) capacity
  - (B) 79 USG (300 L) capacity

## 119 USG (450 L) Pressure Drop Information

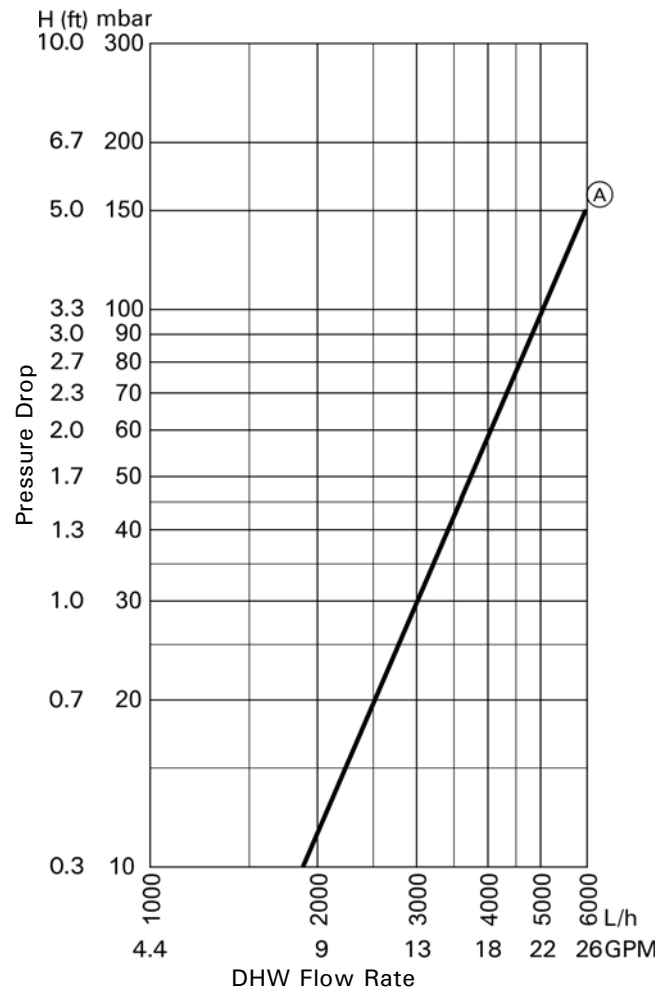
Pressure drop on the heating water side



**Legend**

Ⓐ 119 USG (450 L) capacity

Pressure drop on the domestic hot water (DHW) side



**Legend**

Ⓐ 119 USG (450 L) capacity

## Initial Start-up

1. Fill tank with domestic drinking water.
2. Check heating side and domestic water side adaptors for leaks. Tighten if necessary.
3. Ensure that DHW tank temperature sensor is properly inserted into the mounting clamp.
4. Verify proper operation of temperature and pressure relief valve (T&P valve).
5. Activate power supply.

## Domestic Hot Water Production



Ensure the instructions and requirements of the boiler control and system accessories are observed.

Domestic hot water production can occur via heating boiler, a remote heating plant or low temperature heating via bivalent operation.

The maximum heating supply temperature is 320°F (160°C), the maximum operating pressure is 150 psig on the tank.



### WARNING

**Domestic hot water temperatures over 125°F (52°C) can cause severe burns instantly or death from scalds. Children, disabled and elderly are at highest risk of being scalded. Feel water before bathing or showering. Temperature limiting valves are available and must be used where domestic hot water storage tank temperature exceed 140°F (60°C).**

### Domestic hot water production

1. Set the desired domestic hot water temperature (140°F (60°C) for example) on the operating control of the heating system.
2. The supply temperature for domestic hot water production is set on the heating system operating control. It should be approximately 27°F (15°C) above the desired domestic hot water temperature.
3. For your personal safety, we recommend the installation of a tempering valve to restrict the entry of excessively hot domestic hot water into the system. Hire a qualified heating contractor.

### IMPORTANT

**Domestic hot water may be preheated or heated to temperatures over 113°F (45°C) depending on system energy output and temperature characteristics.**

## Temperature and Pressure Relief Valve



### WARNING

The possibility of mineral build-up on the T&P valve seat exists. Report dripping or discharges from the T&P valve to the heating contractor immediately.

- Ensure there is never any type of valve or restriction of any kind between the tank and the temperature and pressure relief valve (T&P valve), or between the T&P valve and the discharge line outlet.  
The discharge line must be oriented to enable unobstructed and visible flow of discharge water toward a floor drain.
- If you observe water being released out of the discharge pipe of the temperature and pressure relief valve, contact your heating contractor immediately.
- The valve test lever must be operated at least once per year by the heating contractor to ensure that waterway are clear. A licensed professional heating contractor shall reinspect the T&P valve at least once every three years. Failure to inspect can result in unsafe temperature or pressure build-up, which can result in substantial product/property damage, serious personal injury or loss of life.

## Shutdown

If domestic hot water production is not desired and the risk of freezing temperatures in the mechanical room exists, please contact your heating contractor.

## Service and Cleaning

### IMPORTANT

If a water softener system is used in the domestic cold water inlet piping into the tank, the water treatment system should be inspected (serviced) at the same time. If a drinking water filter is used in the main line, the filter cartridge should also be investigated. All external equipment must be serviced regularly and function properly.

Inspection and (if necessary) cleaning of tank must take place within 2 years of initial start-up and as required thereafter. Reinspection time must not exceed 2 years. The internal cleaning of the domestic hot water tank including its potable water connections may only be performed by a licensed professional heating contractor. There are no user serviceable parts on this equipment. Clean tank enclosure with a commercially available alcohol-based glass cleaning agent and a soft clean cloth.

## Necessary Tools

### CAUTION

Never use a metal brush to clean tank interior or heat exchanger - only plastic material may be used.

#### Special Items

- Torque wrench

#### Cleaning supplies

- High pressure washer
- Chemical cleaning liquid
- Cleaning cloth

#### Parts

- Gasket for inspection opening

## Service Procedures

Inspection and (if necessary) cleaning of tank must take place within 2 years of initial start-up and as required thereafter.

In the event that the building is unoccupied and not heated and the danger of frost within the structure exists, the tank as well as the heat exchanger coil must be drained.

In case the heating system is filled with an antifreeze (which must be of non-toxic composition), only the tank must be drained of domestic water and all valves in the domestic hot water and domestic cold water piping except for the main fill valve must remain open.

Ensure the DHW recirculation pump is deactivated (if applicable).

## Shut Down Heating System

Ensure main power supply to equipment, the heating system and all external controls has been shut down. Take precautions in all instances to avoid accidental activation.

## Check all Connections

1. Check heating side and domestic water side adaptors for leaks. Tighten if necessary.
2. Check sensor well for leaks. Tighten if necessary.

## Ensure Proper Operation of all Safety Devices

Verify proper operation of temperature and pressure relief valve (T&P valve).

## Clean Outside of Tank

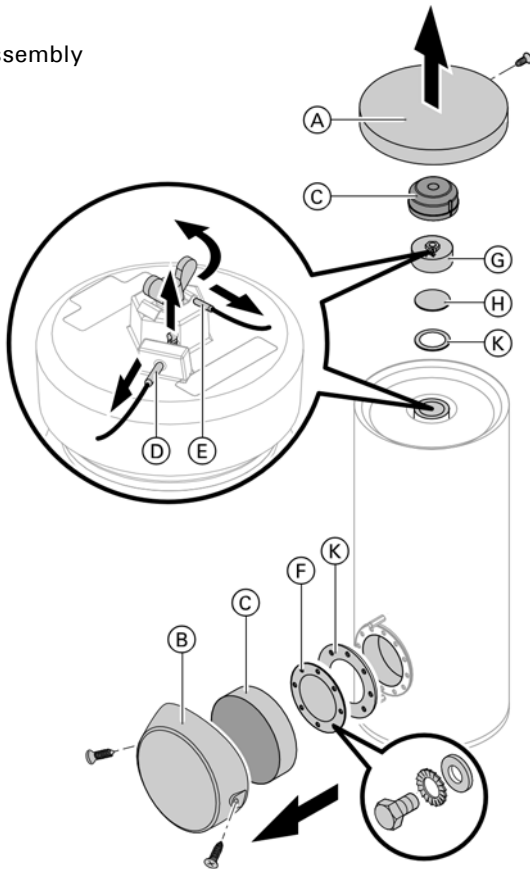
Clean tank encloser panel with a commercially available alcohol-based glass cleaning agent and a soft clean cloth.

## Place System into Operation Again

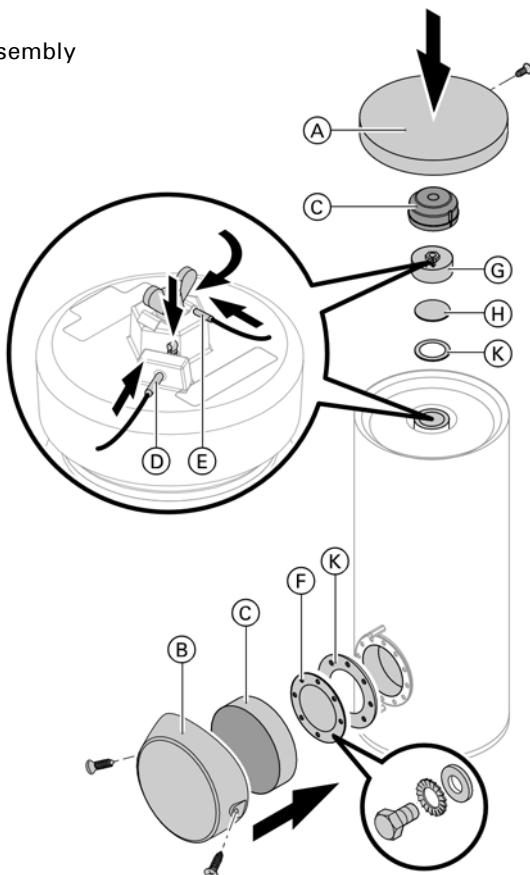
Ensure main power supply to equipment, the heating system and all external controls are reactivated.

## Cleaning the Inside of the 42 to 79 USG (160 to 300 L) Tanks

### Disassembly



### Reassembly



### ! WARNING

**Water being drained may be hot!**

**Note:** The side clean out / inspection port applies only to the 79 USG (300 L) and the 119 USG (450 L) tanks.

1. Drain domestic water from DHW tank.
2. Remove top panel (A) insulation mat (C) and sensors (D) and (E).
3. Remove cleanout cover (G), dome cover (H) and gasket (K).
4. Remove lower cleanout cover (B) and insulation (C).
5. Remove 8 bolts (M10x25) from flange (F) and gasket (K).
6. To prevent chemicals from entering piping, disconnect tank from domestic cold water piping system.
7. Remove loose build-ups with a pressure washer.
8. Remove stubborn build-ups which are resistant to the pressure washer with a chemical cleaner.
9. Rinse interior of tank thoroughly after use of chemical cleaners.

### ! CAUTION

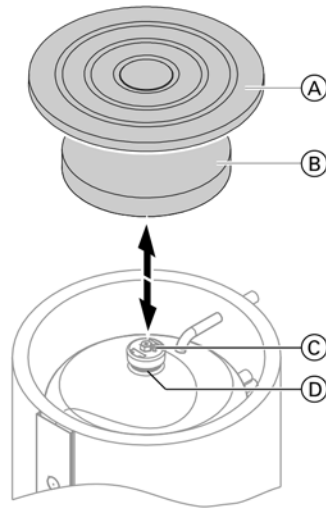
**Never use a metal brush to clean tank interior or heat exchanger - only non-metallic material may be used.**

### ! WARNING

**Never use any cleaners containing muriatic acid. Follow the manufacturer's instructions and warnings when utilizing chemical cleaners for deliming and cleaning devices. Solutions used for cleaning stainless steel equipment in food processing are usually suitable.**

1. Reconnect tank to domestic water piping.
2. Replace gasket (K) and dome cover (H) of cleanout cover (C), with a new seal every time tank is opened.
3. Fasten the cleanout cover (G) using a torque setting of: Inspection cover, top - 118 lb.ft (160 Nm).
4. Fill tank with domestic cold potable water.
5. Reinstall sensor (D) and (E) and top panel (A).
6. Replace gasket (K), reinstall lower cleanout cover (B) and insulation (C).
7. Reinstall 8 flange bolts (F) to a torque of 29.5 lb.ft (40 Nm).
8. Record the completion of these service procedures in the Maintenance Record on page 31.
9. Check all connections for leaks. Tighten if necessary.

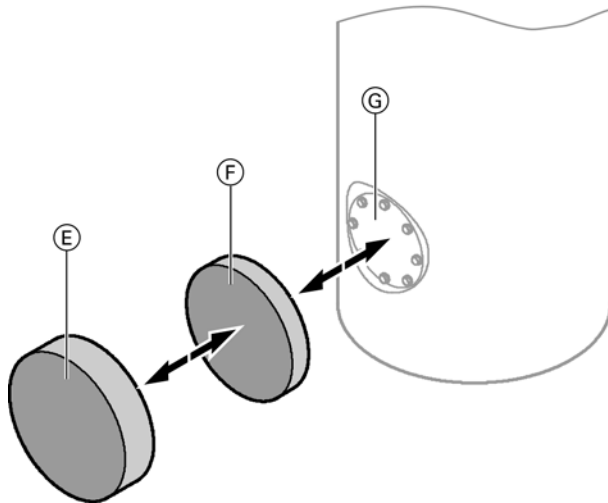
## Cleaning the Inside of the 119 USG (450 L) Tank



### **! WARNING**

**Water being drained may be hot!**

1. Drain domestic water from DHW tank.
2. Remove top panel (A) insulation mat (B) and sensor (C).
3. Remove tank cap, circular blank and gasket (D).
4. Remove lower cleanout cover (E) and insulation (F).
5. Remove 8 bolts (M10x25) from blank flange and gasket (G).
6. To prevent chemicals from entering piping, disconnect tank from domestic cold water piping system.
7. Remove loose build-ups with a pressure washer.
8. Remove stubborn build-ups which are resistant to the pressure washer with a chemical cleaner.
9. Rinse interior of tank thoroughly after use of chemical cleaners.



### **! CAUTION**

**Never use a metal brush to clean tank interior or heat exchanger - only non-metallic material may be used.**

### **! WARNING**

**Never use any cleaners containing muriatic acid. Follow the manufacturer's instructions and warnings when utilizing chemical cleaners for deliming and cleaning devices. Solutions used for cleaning stainless steel equipment in food processing are usually suitable.**

1. Reconnect tank to domestic water piping.
2. Replace gasket of tank cap (D), with a new gasket every time tank is opened.
3. Place circular blank and fasten the tank cap (D) using a torque setting of: 118 lb.ft (160 Nm).
4. Fill tank with domestic cold potable water.
5. Reinstall sensor (C), insulation mat (B) and top panel (A).
6. Replace lower cleanout gasket, reinstall cleanout blank flange (G). Torque flange bolts to 29.5 lb.ft (40 Nm).
7. Reinstall lower cleanout insulation (F) and cover (E).
8. Record the completion of these service procedures in the Maintenance Record on page 31.
9. Check all connections for leaks. Tighten if necessary.



**Vitocell 300-W/V, EVIA 42 and 53 USG (160 and 200 L)**

<b>Model No.</b>	<b>Serial No.</b>
42 USG (160 L) EVIA	7638988□□□□□□□□
53 USG (200 L) EVIA	7637041□□□□□□□□

**Ordering Parts:**

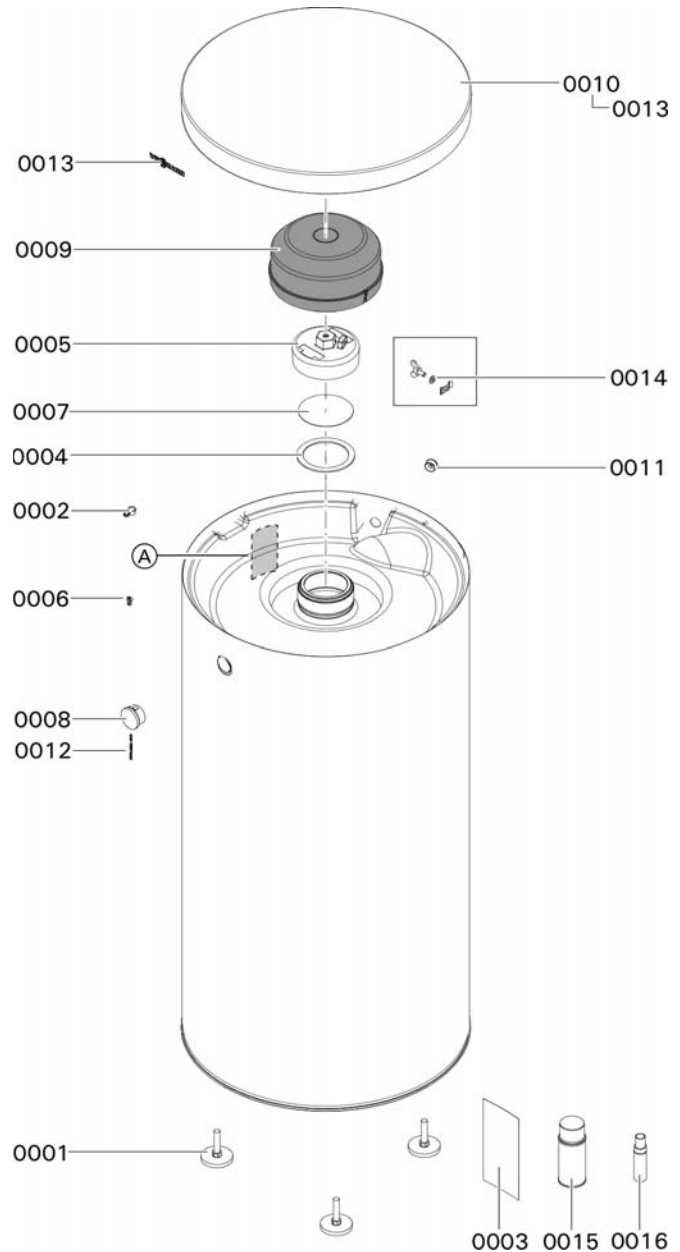
Please provide Model and Serial Number from rating plate **(A)** when ordering replacement parts. Order replacement components from your Viessmann distributor.

**Parts for Tank Assembly**

- 0001 Leveling bolt (each)
- 0002 Strain relief
- 0003 Rating plate, CSA
- 0004 Gasket, 115 x 92 x 3 mm
- 0005 Tank cleanout cap, 4"
- 0006 Spring clip (each)
- 0007 Dome cover, 110 mm
- 0008 Accessory pack, thermometer °F/°C
- 0009 Insulation blanket
- 0010 Top panel
- 0011 Grommet
- 0012 Nameplate "Vitocell 300"
- 0013 Nameplate "Viessmann"
- 0014 Clamping bracket
- 0015 Touch-up spray paint
- 0016 Touch-up paint stick

**Other Parts (not illustrated)**

- 0101 Tee, 3/4" lead-free
- 0102 Temperature and pressure relief valve, 3/4" 150 psi lead-free
- 0103 Cap, 3/4" lead-free
- 0150 Technical Literature Set
- 0152 Technical Data Manual
- 0154 Installation, Service and Operating Instructions
- 0157 Warranty Sheet Vitocell 300



**Vitocell 300-V, EVIA 79 USG (300 L)**

**Model No.** 79 USG (300 L) EVIA      **Serial No.** 7637044□□□□□□□□

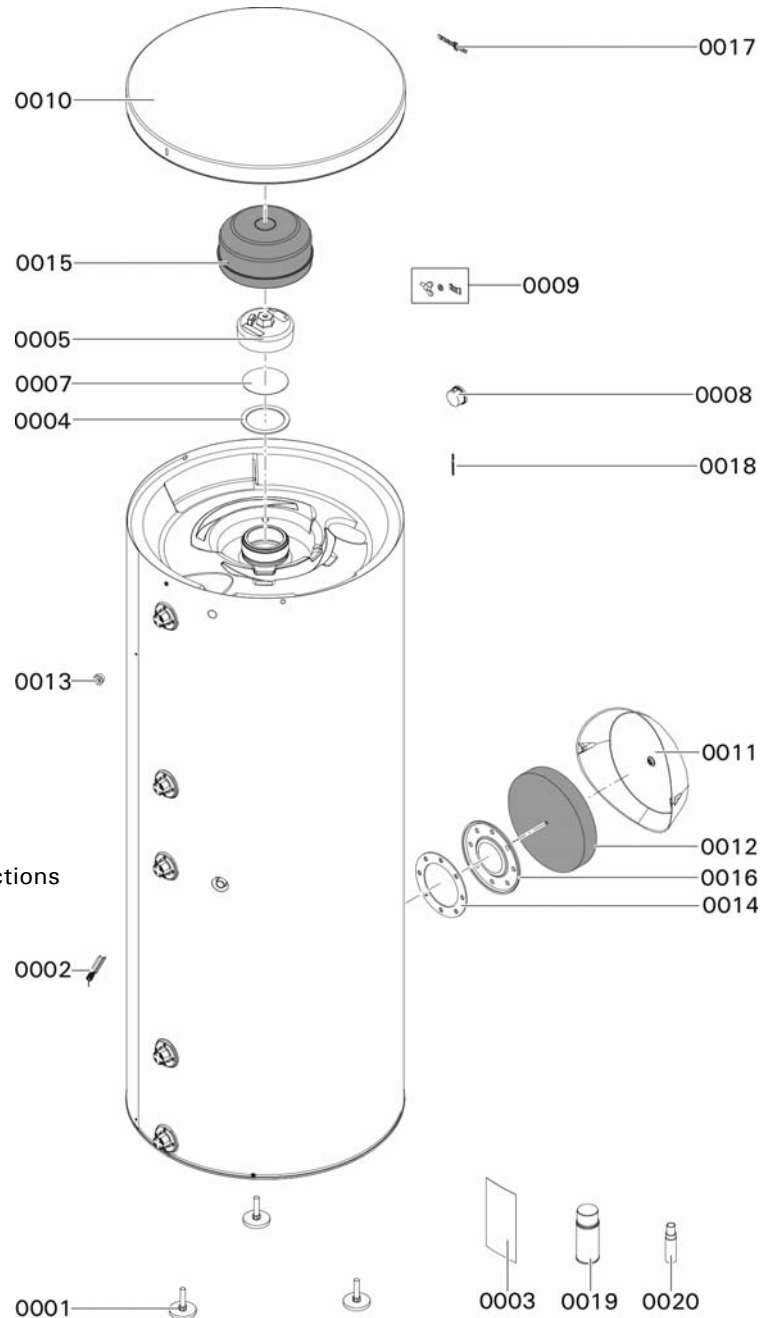
**Ordering Parts:**  
Please provide Model and Serial Number from rating plate (A) when ordering replacement parts. Order replacement components from your Viessmann distributor.

**Parts for Tank Assembly**

- 0001 Leveling bolt (each)
- 0002 Sensor mounting hardware
- 0003 Rating plate, CSA
- 0004 Gasket, 115 x 92 x 3 mm
- 0005 Tank cleanout cap, 4"
- 0007 Dome cover, 110 mm
- 0008 Accessory pack, thermometer °F/°C
- 0009 Clamping bracket
- 0010 Top panel
- 0011 Cover, front
- 0012 Insulation for cover
- 0013 Grommet
- 0014 Gasket, 170 x 115 x 3 mm
- 0015 Insulation blanket
- 0016 Flanged cover
- 0017 Nameplate "Viessmann"
- 0018 Nameplate "Vitocell 300"
- 0019 Touch-up spray paint "Vitoltec" silver
- 0020 Touch-up paint stick "Vitoltec" silver

**Other Parts (not illustrated)**

- 0006 Spring clip (each)
- 0101 Tee, 1" lead-free
- 0102 Temperature and pressure relief valve, 3/4" 150 psi lead-free
- 0103 Cap, 1" lead-free
- 0104 Hex Bushing, 1" x 3/4" lead-free
- 0150 Technical Literature Set
- 0152 Technical Data Manual
- 0154 Installation, Service and Operating Instructions
- 0157 Warranty Sheet Vitocell 300



## Vitocell 300-V, EVIB 119 USG (450 L)

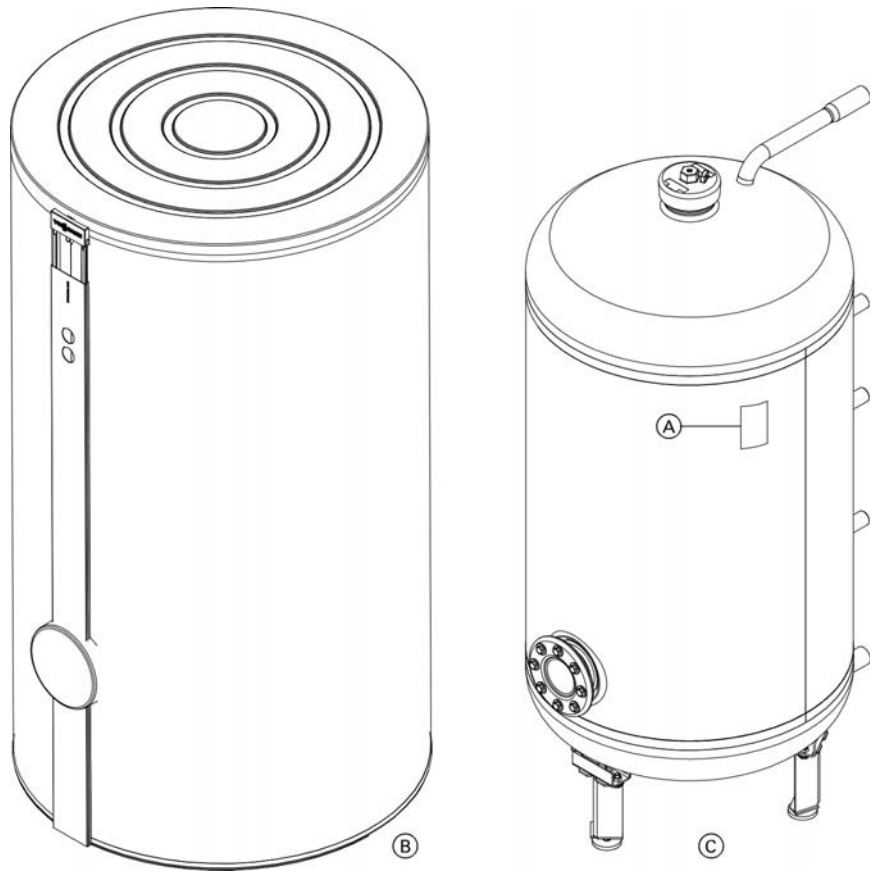
**Model No.** 119 USG (450 L) EVIB      **Serial No.** 7735635□□□□□□□□

**Ordering Parts:**

Please provide Model and Serial Number from rating plate (A) when ordering replacement parts. Order replacement components from your Viessmann distributor.

**Parts for Tank Assembly**

- (A) Rating plate
- (B) Thermal insulation
- (C) Tank body

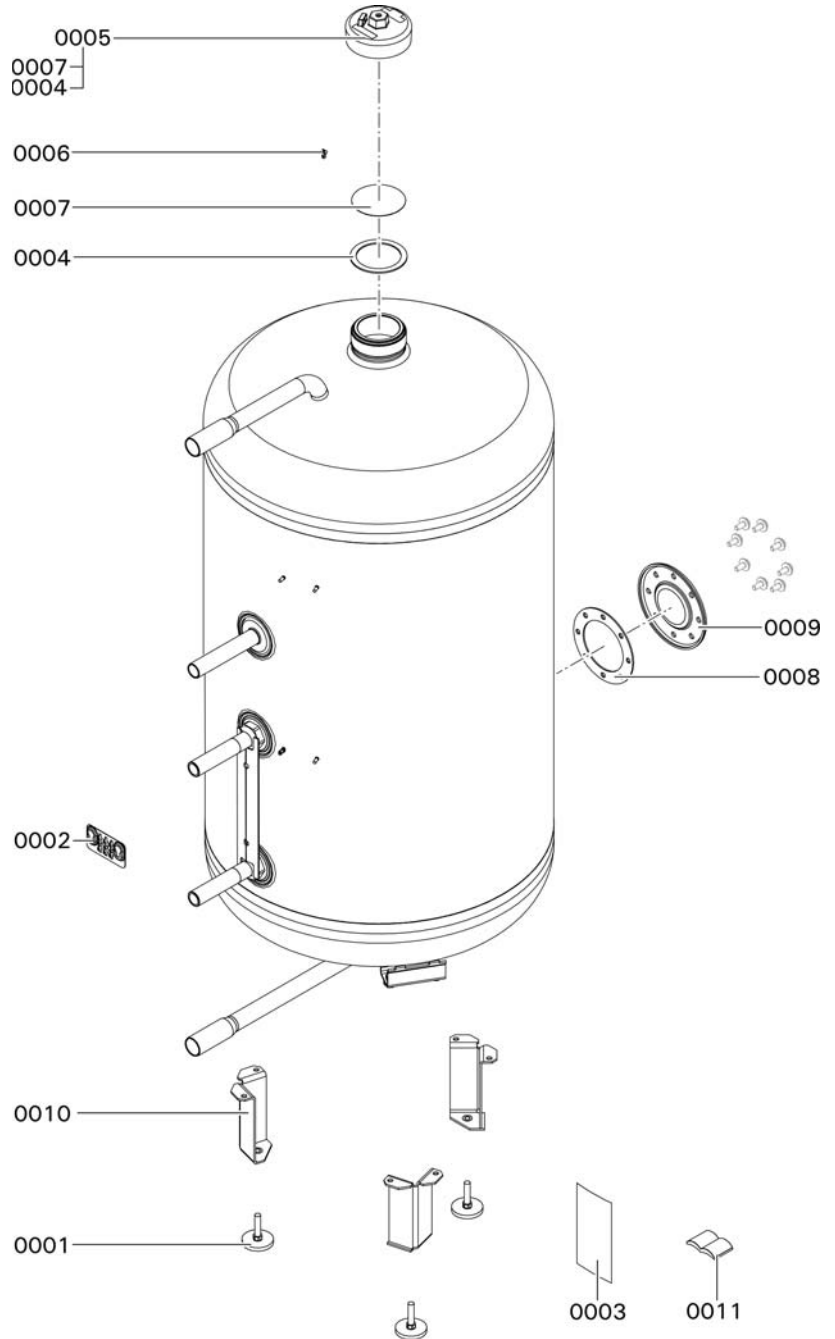


**Vitocell 300-V, EVIB 119 USG (450 L)**

**Model No.**                      **Serial No.**  
 119 USG (450 L) EVIB    7735635□□□□□□□□

**Ordering Parts:**  
 Please provide Model and Serial Number from rating plate when ordering replacement parts. Order replacement components from your Viessmann distributor.

- Parts for Tank Body**
- 0001 Adjustable foot
  - 0002 Clamps for temperature sensors
  - 0003 Rating plate
  - 0004 Gasket
  - 0005 Tank cap
  - 0006 Clip
  - 0007 Circular blank
  - 0008 Gasket
  - 0009 Blank flange
  - 0010 Support
  - 0011 Installation and service instructions



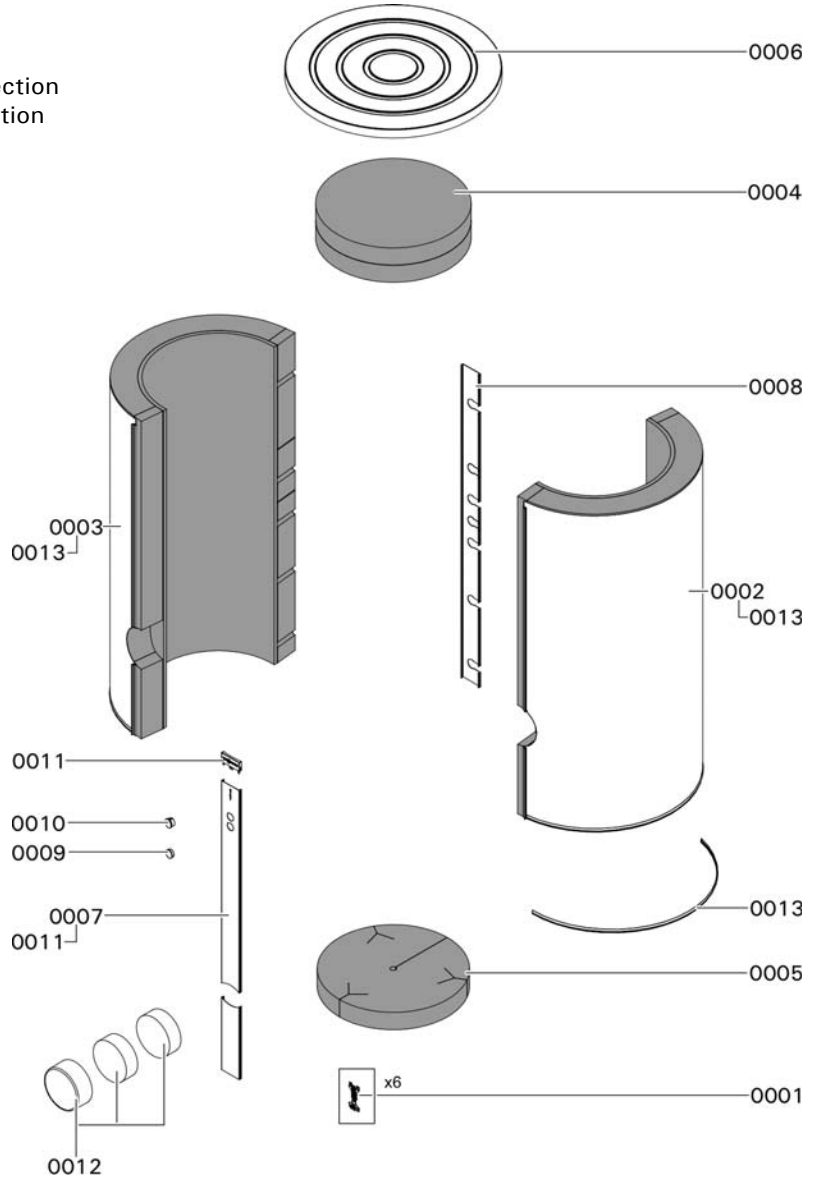
**Vitocell 300-V, EVIB 119 USG (450 L)**

**Model No.** 119 USG (450 L) EVIB      **Serial No.** 7735635□□□□□□□□

**Ordering Parts:**  
Please provide Model and Serial Number from rating plate when ordering replacement parts. Order replacement components from your Viessmann distributor.

**Parts for Thermal Insulation**

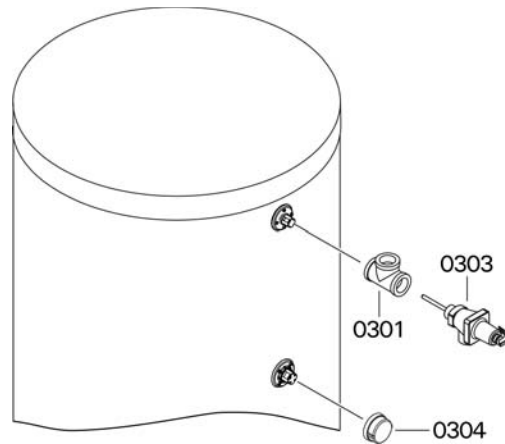
- 0001 Clip closure
- 0002 Thermal insulation jacket, right section
- 0003 Thermal insulation jacket, left section
- 0004 Upper thermal insulation mat
- 0005 Lower thermal insulation mat
- 0006 Cover
- 0007 Front cover strip
- 0008 Rear cover strip
- 0009 Thermometer cover
- 0010 Thermometer 30 - 120°C
- 0011 Cap with Viessmann logo
- 0012 Flange cover
- 0013 Lower protective profile



**Installation Set 42 and 53 USG (160 and 200 L)**

**Parts**

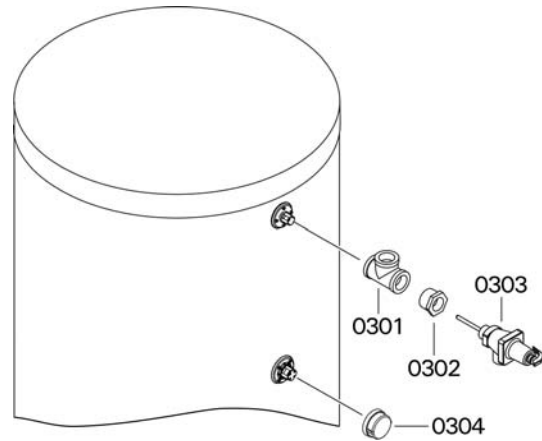
- 0301 Tee 3/4 in. brass
- 0303 Temperature and pressure relief valve, 3/4" 150 psi
- 0304 Cap 3/4 in. brass



**Installation Set 79 USG (300 L)**

**Parts**

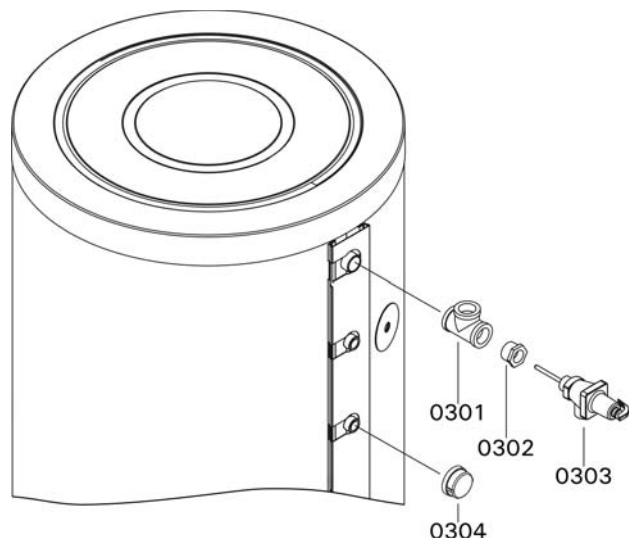
- 0301 Tee 1 in. brass
- 0302 Reducer bushing 1 to 3/4 in.
- 0303 Temperature and pressure relief valve, 3/4 in. 150 psi
- 0304 Cap 1 in.



**Installation Set 119 USG (450 L)**

**Parts**

- 0301 Tee 1 1/4 in. brass
- 0302 Reducer bushing 1 1/4 to 3/4 in.
- 0303 Temperature and pressure relief valve, 3/4 in. 150 psi
- 0304 Cap 1 in.



**Maintenance Record**

	<b>Startup</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>
date:				
by:				

	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>
date:				
by:				

	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>
date:				
by:				

	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>
date:				
by:				

	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>
date:				
by:				

	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>	<b>Maintenance/Service</b>
date:				
by:				

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